

ABSTRACT

A lead-frame based substrate panel for use in semiconductor packaging is described. The substrate panel includes a lead-frame panel having at least one array of device areas. Each device area has a plurality of contacts. The lead-frame panel is filled with a dielectric material to form a relatively rigid substrate panel that can be used for packaging integrated circuits. The top surface of the dielectric material is typically substantially coplanar with the top surface of the lead-frame panel, and the bottom surface of the dielectric material is typically substantially coplanar with the bottom surface of the lead-frame panel.